DECLARATION

OF

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I. Qualifications

A. Robert Willig

1. Robert Willig is Professor of Economics and Public Affairs at the Woodrow Wilson School and the Economics Department of Princeton University, a position he has held since 1978. Before that, he was Supervisor in the Economics Research Department of Bell Laboratories. His teaching and research have specialized in the fields of industrial organization, government-business relations, and welfare theory.

2. Willig served as Deputy Assistant Attorney General for Economics in the Antitrust Division of the Department of Justice (“DOJ”) during the Administration of President George H.W. Bush (1989 to 1991). He also served on the Defense Science Board task force on the antitrust aspects of defense industry consolidation and on the Governor of New Jersey’s task force on the market pricing of electricity. He is the author of numerous articles, author and editor of several books, and the co-editor of *The Handbook of Industrial Organization*.

3. He has been active in both theoretical and applied analysis of issues affecting the telecommunications industry, including the wireless sector. Since leaving Bell Laboratories, Willig has been a consultant to a number of major telecommunications and wireless providers. He has testified before the U.S. Congress, the Federal Communications Commission, and the public utility commissions of about a dozen states regarding telecommunications issues. He has also been on government and privately supported missions involving telecommunications throughout South America, Canada, Europe, and Asia. On other matters, he has worked as a consultant with the Federal Trade Commission, the Organization for Economic Cooperation and Development, the Inter-American Development Bank, the World Bank, and various private
clients. Willig also serves as a Senior Consultant to Compass Lexecon, LLC, an economic consulting firm.

B. Jonathan Orszag

4. Jonathan Orszag is a Senior Managing Director and member of the Executive Committee of Compass Lexecon. His services have been retained by a variety of public-sector entities and private-sector firms ranging from small businesses to Fortune 500 companies. These engagements have involved a wide array of matters, from entertainment and telecommunications issues to issues affecting the sports and retail industries. He has been active in applied analysis of issues affecting the wireless sector. He has testified before administrative agencies, the U.S. Congress, U.S. courts, the European Court of First Instance, and other domestic and foreign regulatory bodies on a range of issues, including competition policy, industry structure, and fiscal policy.

5. Previously, Orszag served as the Assistant to the U.S. Secretary of Commerce and Director of the Office of Policy and Strategic Planning and as an Economic Policy Advisor on the President’s National Economic Council. For his work at the White House, he was presented the Corporation for Enterprise Development’s 1999 leadership award for “forging innovative public policies to expand economic opportunity in America.”

6. Orszag is a Fellow at the University of Southern California’s Center for Communication Law & Policy. He received a M.Sc. from Oxford University, which he attended as a Marshall Scholar. He graduated summa cum laude in economics from Princeton University, was elected to Phi Beta Kappa, and was named to the USA Today All-USA College Academic Team. In 2004, he was named by the Global Competition Review as one of “the world’s 40 brightest young antitrust lawyers and economists” in its “40 under 40” survey. In 2006, the
Global Competition Review named him as one of the world’s “Best Young Competition Economists.”

C. J. Loren Poulsen

7. Loren Poulsen is a Vice-President of Compass Lexecon, LLC. Poulsen has experience in a wide array of industries, including telecommunications, internet messaging (and VOIP), consumer products, industrial products and health care. Prior to joining Compass Lexecon (formerly COMPASS), Poulsen worked for CapAnalysis at Howrey, LLP. Poulsen received his Ph.D. in Economics from George Mason University with concentrations in Industrial Organization and Public Choice Theory.

II. Introduction

8. We have been asked by counsel for AT&T Inc. (“AT&T”) and Centennial Communications Corp (“Centennial”) to assess the potential competitive effects of the proposed merger between AT&T and Centennial. In particular, we have been asked to focus our analysis on (i) the potential consumer benefits that would result from the proposed merger; (ii) the competitive effects of the proposed merger on a national basis; and (iii) the post-merger competitive effects in the particular Cellular Market Areas (“CMAs”) where, at present, AT&T and Centennial both offer facilities-based service.

9. Our declaration provides a general analysis of the competitive pressures influencing pricing decisions and assesses the likelihood of competitive harms that might result from unilateral behavior or coordinated effects. While we are still developing additional data regarding the state of competition in each CMA possibly affected by this transaction, we have reviewed data regarding the number of competitors and the merging firms’ spectrum,
subscribers, and network presence. In addition, we have reviewed the declarations of the applicants and interviewed relevant personnel at each firm. Our analysis of the available evidence shows that the proposed merger between AT&T and Centennial is unlikely to harm competition or the public interest on a national basis or in any CMA through unilateral effects or coordinated interactions.

10. We conclude that the proposed merger of AT&T and Centennial would not result in any material alteration of the existing competitive forces driving AT&T’s wireless pricing decisions or other pertinent competitive activity in any geographic area. We also conclude that the merger will not result in any harm to competition in the sale of wireline services in Puerto Rico. As shown below, there is no basis for concluding that the transaction would adversely affect competition. From the standpoint of structure at the CMA level, and in light of the competitive forces constraining AT&T’s post-merger behavior, there is no reason to expect that the merger will lead to either unilateral or coordinated anticompetitive effects.

11. The remainder of this declaration is organized as follows. Section III discusses the specific efficiency benefits that would be engendered by the proposed AT&T-Centennial combination. Section IV assesses the likelihood of unilateral and coordinated competitive effects as a result of the proposed merger. Section V discusses the effect of the merger on wireline competition in Puerto Rico. Section VI draws conclusions based on the previous sections.

III. Merger-Specific Efficiencies

12. AT&T and Centennial are pursuing the proposed transaction in order to achieve a number of significant efficiencies that will result in cost savings and quality improvements for
consumers. For Centennial’s existing customers, many of whom reside in suburban and rural areas, the merger will enable AT&T to make available a wider variety of advanced services than they would likely receive in the absence of this transaction; the merger will specifically benefit Centennial customers who reside in areas where AT&T does not currently operate and those who are subject to a term of service commitment under their current contracts with Centennial. These efficiencies are merger-specific; that is, they likely could not be achieved at all, nor certainly achieved as rapidly, absent the proposed merger.

13. In this section, we discuss four specific efficiencies that AT&T and Centennial expect to achieve from the merger and explain why these efficiencies likely will result in direct and significant benefits to consumers. The four efficiencies are: (a) reduced costs from the elimination of inter-company roaming fees; (b) greater variety of handsets at lower cost; (c) other cost savings and benefits; and (d) improved customer experience.

A. Reduced Costs from Elimination of Inter-Company Roaming Fees

14. Consummation of the proposed deal will reduce both Centennial’s and AT&T’s reliance on roaming, thereby generating savings in the marginal costs that each experiences, and concomitant elimination of any double marginalization. AT&T and Centennial have extensive roaming agreements in place and are substantial roaming partners. In 2007, Centennial’s incoming roaming revenues were roughly $65 million and AT&T accounted for approximately 70 percent of that total.\(^1\) Since the roaming fees paid by AT&T and Centennial are significantly greater than their costs of providing in-network service, the transaction should save the merged-

\(^1\) See Hunt Decl. ¶ 7.
entity well in excess of $100 million of experienced marginal costs over the next five years, based on 2008 roaming rates. The elimination of the inter-company payments associated with this roaming traffic will reduce the combined company’s marginal costs of providing service to consumers. Economic theory shows that marginal cost savings will accrue to the benefit of consumers in the form of lower prices, higher service quality, or both.

B. Greater Variety of Handsets at Lower Cost

15. The proposed transaction will also result in cost savings because of AT&T’s greater economies of scale. Due to its larger subscriber base, AT&T enjoys a cost advantage, relative to Centennial, in handset acquisition. Centennial generally relies on third-party distributors to purchase handsets for use by its customers and does not have the scale on its own to receive the level of volume discounts that carriers with larger scale are often able to obtain. The proposed transaction will therefore result in a lower per-subscriber cost of serving Centennial’s customers, which is another reduction in marginal cost and the source of another benefit to Centennial’s subscriber base.

16. AT&T also provides its customers with a greater range and variety of handsets than Centennial can on its own. The transaction thus will enable AT&T to provide to Centennial subscribers, where AT&T does not offer service or who would incur financial penalties to terminate prematurely their service agreements, newer and more innovative handsets than would be available to them absent the merger. There are numerous phones and features that

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2 See Moore Decl. ¶ 6.
AT&T, but not Centennial, offers (and has offered) to subscribers due both to its scale and its more advanced network functionality that can support new devices.

C. Other Cost Savings and Benefits

17. In addition to lower roaming fees and reduced handset acquisition costs, AT&T and Centennial also have identified merger-specific efficiencies in their information technology and administrative systems. For example, it is anticipated that the merger will reduce the cost of handling billing for Centennial subscribers as they are migrated into AT&T’s billing system.\(^3\) Folding Centennial’s customer base into AT&T’s existing system will therefore result in significant customer-level marginal cost savings post-transaction. The parties have identified other sources of cost savings as well, such as reduced customer acquisition costs; consolidation of redundant cell sites and network operating expenses; and reductions in general and administrative expenses. Another important benefit to Centennial’s customers (and, to a lesser extent, to AT&T customers), would arise directly from combining the customer bases. Both AT&T and Centennial currently offer plans featuring free “mobile to mobile” in-network calling minutes in the United States.\(^4\) Centennial’s U.S. and Caribbean wireless customers with national rate plans, however, can avail themselves of this opportunity only when calling the roughly 1.1 million wireless subscribers to Centennial’s service.\(^5\) AT&T, in contrast, has approximately 75

\(^3\) See Moore Decl. \(\text{¶} 31-32.\)

\(^4\) For Puerto Rico and the U.S. Virgin Islands, most wireless providers provide unlimited local wireless calling in and out of network. For purposes of this declaration, “Caribbean” will be used to refer to both markets in the Caribbean – the U.S. Virgin Islands and Puerto Rico.

\(^5\) See Hunt Decl. \(\text{¶} 4.\)
million total subscribers. The proposed transaction thus will increase dramatically the number of customers to whom current Centennial subscribers would be able to make such unlimited mobile-to-mobile calls.

18. In areas where AT&T is the ILEC, but currently does not offer wireless service, the proposed transaction will put the combined company in a better position to integrate the wireless/wireline networks serving those customers. This provides the possibility to further benefit Centennial’s customers by combining their wireline and wireless service providers. Among the consumer benefits of this “bundled service” are receipt of a single bill, as well as eligibility for discounts available when subscribing to multiple services. Where AT&T currently offers wireline service, Centennial’s existing customers could also sign up for one of AT&T’s Unity Plans, which allow unlimited calls to and from each of the more than 120 million wireline and wireless phone numbers of current AT&T customers.

19. Additional benefits from the proposed transaction include the merger-specific efficiencies will result from the integration of Centennial’s local wireline facilities in Puerto Rico with AT&T’s off-island facilities. These benefits include the elimination of double marginalization, improved service quality resulting from the elimination of third-party contracting for local-loop access, unified billing to customers, and associated reduced billing costs.

6 See Moore Decl. ¶ 4.
7 The proposed merger would also increase marginally the number of customers to whom current AT&T subscribers would be able to make unlimited mobile-to-mobile calls. It is important to note that while Puerto Rico customers enjoy unlimited calls on the island today, the merger would give Centennial customers the additional option of participating in one of AT&T’s national plans with the ability to call all other subscribers in Puerto Rico and the United States.
8 See Moore Decl. ¶ 14.
9 See Moore Decl. ¶ 9.
D. Improved Customer Experience

20. In addition to lowering customer costs as a result of the reduction in the merging parties’ marginal costs, the proposed merger is likely to improve the wireless customer experience.\(^\text{10}\) Integration of the companies’ networks will permit greater cell site density in areas where the companies’ spectrum holdings overlap and their overlapping tower facilities are complementary. The merger also will permit the combined company to use more efficiently the current companies’ complementary spectrum and networks. Greater cell site density will enable faster data speeds and better penetration of homes and buildings. In addition, in areas where AT&T does not currently provide coverage and Centennial has 850 MHz spectrum, the proposed merger will enable AT&T to avoid the costs of constructing network facilities that might otherwise be necessary. In areas where AT&T provides 1900 MHz service, the integrated network will be able to make use of Centennial’s 850 MHz spectrum. Use of 850 MHz spectrum, coupled with increased cell site density, will enhance the customer calling experience by reducing, for example, the incidence of dropped calls, dead spots, and coverage gaps in certain areas. Any tower facilities not needed for service enhancement can be decommissioned for further cost savings. While AT&T and Centennial currently have roaming agreements and might attempt to expand their coverage through additional roaming agreements, such

\(^{10}\) The Commission recently concluded that the Verizon Wireless-ALLTEL transaction was likely to result in transaction-specific public interest benefits, including increased network coverage, expanded and improved services and features, roll-out of next generation services, improvements in service quality, and economies of scale and scope. See In re Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC for Consent to Transfer Control of Licenses, Authorizations, and Spectrum Manager and De Facto Transfer Leasing Arrangements and Petition for Declaratory Ruling that the Transaction is Consistent with Section 310(b)(4) of the Communications Act, WT Dkt No. 08-95, Memorandum Opinion and Order, FCC 08-258, ¶ 156 (rel. Nov. 10, 2008) (“Verizon/ALLTEL Order”).
arrangements offer fewer benefits to customers than can be achieved through a complete integration of the two firms’ wireless infrastructures with concomitant improvements and upgrades to Centennial’s network by AT&T.

21. The proposed transaction will enable AT&T to make available to Centennial’s customers in areas not currently served by AT&T an array of services, features, and rate plan options that Centennial either does not or cannot provide because it lacks a 3G network in the mainland U.S. and the overall subscriber base and/or the access to capital enjoyed by AT&T. Such services, features, and options include mobile video and subscription-music services,\textsuperscript{11} a wider selection of advanced handheld devices,\textsuperscript{12} and more international roaming.\textsuperscript{13} These services are popular with customers. As a general matter, Centennial’s business executives note that Centennial is not an early adopter of advanced services due to its limited resources and business strategy. While Centennial’s CDMA network is 3G in Puerto Rico, it is only just beginning to test 3G service in the U.S. and currently has no plans for 4G service. Centennial generally waits for the larger carriers to roll out new features and then, after the features have been market tested, decides which ones to implement. As a result, even to the extent that Centennial might eventually have offered some of the advanced features described above,

\textsuperscript{11} See Hunt Decl. ¶ 11.
\textsuperscript{12} For example, Wi-Fi and GPS functionalities included in certain handsets are now available to AT&T subscribers. Centennial has no GPS service in the U.S. and only limited offerings in Puerto Rico. See Hunt Decl. ¶ 12.
\textsuperscript{13} AT&T has 637 international roaming agreements covering 211 countries for voice services and 131 countries for data services. See Moore Decl. ¶ 16. By contrast, Centennial offers its customers direct international roaming capability to its mainland U.S. customers in only five countries, and to its Caribbean wireless customers only in a limited number of countries in the Caribbean, North America, and South America. See Hunt Decl. ¶ 9. Therefore, the transaction will offer Centennial’s customers much greater international roaming capabilities than they otherwise have.
Centennial’s existing customers will benefit from the proposed transaction by gaining more timely access to the most recent advanced services.

22. The proposed transaction will also allow Centennial to take advantage of AT&T’s larger disaster recovery capabilities in its service areas. With dozens of decentralized call centers, a fleet of mobile generators and towers, and two mobile command centers, AT&T is better prepared to respond to a regional emergency and maintain cell phone connectivity, which is vital to both first-responders and ordinary citizens in emergency situations. In contrast, Centennial has only one call center for its domestic operations and one primary call center for its Caribbean operations.14

E. Conclusion

23. The four categories of efficiencies described above, and the consumer benefits that flow therefrom, are not mere speculation. Acquisitions recently consummated by AT&T strongly corroborate our conclusions regarding the efficiencies to be realized in a timely manner from the combination of AT&T’s and Centennial’s networks, operations, and workforces.15

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14 See Moore Decl. ¶ 19 and Hunt Decl. ¶ 16.
15 For example, AT&T executives anticipate that all legacy AT&T and Dobson customers living in overlap areas from that transaction will have access to the improved integrated network by this December.
IV. Competition Analysis of Proposed AT&T-Centennial Merger

A. Overview

24. For several reasons, the proposed transaction is unlikely to harm competition in any particular CMA. First, as discussed below, even if competition were analyzed at the CMA level, it would be seen that sufficient rivalry will remain in every CMA, both in the U.S. and the Caribbean, so that anticompetitive effects are unlikely. Moreover, the competitive forces that characterize the wireless communications industry at the national level are an additional factor that makes such localized anticompetitive effects unlikely.

25. Before considering competition at the local level, it is important to note that AT&T and Centennial generally set U.S. prices for wireless service on a nationwide basis. AT&T’s current rate plans in the continental U.S. are national in scope and their pricing is determined almost entirely on a national basis.\textsuperscript{16} We understand from AT&T executives that uniform pricing results in significant efficiencies by allowing AT&T to employ common platforms and information across its entire system of call centers. Uniform pricing also allows more cost-effective sales training on common products and services, particularly when working with national retailers, such as Wal-Mart, RadioShack, and Best Buy. The very fact that AT&T today sets its service prices on a nationwide basis suggests that the added costs of setting prices on a local basis exceed the incremental benefits such narrow geographical pricing might

\textsuperscript{16} As for the continental U.S., it is our understanding that both AT&T and Centennial set prices for Puerto Rico and the U.S. Virgin Islands on an island-wide basis. These prices may differ from continental U.S. rate plans.
Centennial has offered regional plans in the past, but has not offered a regional plan to new customers in the U.S. for over a year. Centennial replaced its regional plans with national plans in the mainland U.S. in response to competition with other wireless providers.

26. For a local deviation from the national rate plan to be implemented, AT&T undergoes a lengthy process of review in advance of its approval. Any such “promotions” are not only rare, but typically short-term in nature. Such local pricing variations are not implemented in areas as small as a CMA, and are typically offered to customers throughout an entire state or region. Moreover, according to AT&T executives, these promotions have occurred only very infrequently. The relative infrequency, limited duration, and broad geographic coverage of AT&T’s promotions indicate that they are not a significant departure from national pricing. Moreover, these characteristics indicate that de minimis changes to AT&T’s national subscriber or spectrum shares, such as would arise through the proposed deal, are unlikely to have an impact on AT&T’s national pricing.

27. When competition is analyzed at a national level, it is clear that the proposed merger of Centennial and AT&T would not harm competition. Centennial’s total number of wireless customers represents only a small share of wireless customers nationwide – less than one half of one percent. Thus, the combined entity will only have a marginally larger share of

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17 Given that Centennial increases the AT&T subscriber base by such a small amount, it is unlikely that the proposed transaction would affect AT&T’s incentives to continue to set its service prices on a nationwide basis.
18 See Hunt Decl. ¶ 17.
19 AT&T does provide its local managers with some flexibility in pricing its handsets, but handsets represent a small share of the overall cost of wireless service.
wireless customers nationally than does AT&T alone today. In the Caribbean, the combined firm will continue to face a very competitive marketplace. In Puerto Rico, direct competitors include Claro (an affiliate of the wireline incumbent), T-Mobile (SunCom), Sprint, and OpenMobile, all providing facilities-based service. In the U.S. Virgin Islands, competitors include Sprint, Innovative/VITELCO, and T-Mobile.\textsuperscript{21} The combined entity will continue to face significant competitive discipline in the U.S. and the Caribbean both from other major national facilities-based cellular carriers, other wireless carriers that are expanding their networks, new entrants such as the recent New Clearwire joint venture, and Mobile Virtual Network Operators ("MVNOs"). Existing competitors, such as Leap and MetroPCS, are expanding their service territories. Moreover, increasingly, the merged entity likely will face competitive pressure from service providers employing non-cellular technologies such as wireless Voice over Internet Protocol ("VOIP").

28. Nonetheless, even if we assume, for the sake of argument, that competition in the mainland U.S. is more localized and confined to individual CMAs, within each of these CMAs a proper assessment must account for ten factors. Each of these factors may attenuate any potential anticompetitive effects of the proposed merger.\textsuperscript{22} The presence of any one of the pertinent factors in a given CMA may constrain the combined entity’s ability to raise prices or diminish quality.\textsuperscript{23} In the overlap CMAs, several of these factors typically operate in

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\textsuperscript{21} T-Mobile does not currently sell service locally, but does own and operate an existing network of facilities in the U.S. Virgin Islands.
\textsuperscript{22} It is important to emphasize that many of these factors are driven by competition at the \textit{national} level, rather than by CMA-level competition.
\textsuperscript{23} In a somewhat different, but similar context, the FCC recognized that a number of factors have important influences on competition in a CMA. Specifically, the FCC wrote:
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combination to eliminate or mitigate substantially any competitive concerns. We consider each of these ten factors below.24

B. Unilateral Effects Analysis

29. The first factor that must be considered for each CMA is the number of facilities-based competitors.25 In all of the overlap CMAs across the continental U.S., there will still be a significant number of facilities-based competitors post-merger. In most of the overlap CMAs, Sprint, T-Mobile, and Verizon are all facilities-based competitors, and in nearly all of the other overlap CMAs, at least two of these national carriers are facilities-based competitors.

30. In Puerto Rico, there would be five competitors (including AT&T) after the transaction and all of them offer unlimited island-wide rate plans in all CMAs on the island, except Sprint which is not present in CMA 725 (Ciales). In the U.S. Virgin Islands, AT&T would continue to face competition from two facilities-based carriers - Sprint and

Consistent with our recent wireless transaction orders, further competitive review of each of these CMAs would include, among other things, the determination of: (1) the total spectrum available for mobile telephony use; (2) the particular applicant’s portion of available spectrum; (3) licensees in the market and their spectrum holdings; (4) licensees currently providing service in the market; (5) whether current service providers, who may be capacity constrained in the near-term, can access additional spectrum in the market either through auction or on the secondary market; and (6) licensees currently holding spectrum that could enter the market to provide service.


24 These factors are not presented in order of importance.

25 For purposes of this declaration, Verizon and ALLTEL spectrum have been combined when counting facilities-based competitors and spectrum ownership.
Innovative/VITELCO - as well as T-Mobile, which owns and operates an existing network of facilities.

31. Although some carriers are closer substitutes for each other than others, the FCC has recognized a high degree of substitutability among the services of all wireless providers. Thus, given the number of carriers in both the U.S. and the Caribbean that would remain in each CMA post-merger, any attempt by the combined entity to elevate price, suppress output, or degrade service quality would be unprofitable (because customers could easily switch to another carrier), and therefore any such measure would be transitory or, far more likely, never attempted in the first place.

32. The second factor, which is closely related to the first, is the combined AT&T-Centennial subscriber share in the given CMA. The smaller the combined share, the weaker the incentives of the merged entity to raise prices due to the limited base of business on which to enjoy any elevated prices and due to the presence of other carriers with sufficient incentive and ability to discipline any potential price elevation by the combined firms. If the combined entity does not have a significant share of subscribers, the inquiry should end with regard to that particular CMA. It is clear from the number of AT&T and Centennial subscribers in some areas that the total combined share in those areas post-merger would be too small to engender any possible competitive concern.

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The third factor to consider is that the wireless industry is dynamic – churn levels are relatively high and historical trends reveal significant shifts in market share. According to the FCC, most mobile telephone providers report churn rates ranging from 1.5 percent to 3.0 percent per month.\textsuperscript{28} This translates to losing about 18 percent to 36 percent of existing customers every year. Given such high rates of customer turnover, churn is one of the most important challenges to wireless providers. The extant churn rates, in part, reflect the ease with which customers can port their numbers from one carrier to another; in 2006, approximately 10.3 million wireless subscribers took advantage of number portability.\textsuperscript{29} As a result, market share calculations based upon new subscribers and churners, \textit{i.e.}, recent market share trends, may indicate a greater level of competition than does a static snapshot of historical market shares. As explained in the Horizontal Merger Guidelines: “Market concentration and market share data of necessity are based on historical evidence. However, recent or ongoing changes in the market may indicate that the current market share of a particular firm either understates or overstates the firm's future competitive significance.”\textsuperscript{30} The ability of a wireless carrier, even one with a relatively modest market position today, to achieve rapid growth trajectories suggests that the

\textsuperscript{29} See Twelfth Annual CMRS Report at 2249.
markets are more competitive than may be indicated by a singular focus on existing market shares. The FCC itself has recognized this fact in many of its market power analyses.  

34. The fourth factor is the degree of competition between AT&T and Centennial in the CMA. We understand that AT&T’s business executives do not view Centennial as offering a mix of features, services, and plans that closely matches AT&T offerings. These executives indicated that, as a result, competition from Centennial in the U.S. does not factor into AT&T’s decisions about pricing, promotions, or improvements in service quality. Indeed, AT&T executives view other national carriers – such as Verizon – as having offerings that are more similar to those of AT&T. Centennial does not appear to act as a significant competitive constraint on AT&T’s pricing and other market conduct. Therefore, the proposed merger is unlikely to significantly harm competition.

35. In the Caribbean, Centennial has a larger presence, as compared to its presence in the United States. However, as noted above, the region has a significant number of competitors, including major carriers on the continental U.S., as well as several other competitors, such as Claro and OpenMobile. Given the degree of competition in the Caribbean, it does not appear that this transaction would eliminate a significant constraint to AT&T’s pricing.

36. The fifth factor is the ability of existing facilities-based competitors to expand their service offerings within the CMA. The ability of rivals to respond to a price increase by the merged entity depends critically on whether the rivals have sufficient available spectrum to expand without incurring any unusually large incremental costs and without necessitating any

reduction in the quality of service. The FCC has previously noted that the availability of spectrum to rival carriers is a key factor in its competitive effects evaluation.\textsuperscript{32} Specifically, the Commission has noted that “where a firm is already present in a market, has comparable service coverage, and has excess capacity relative to its current subscriber base, it should be able to adjust rates, plan features, handsets, advertising, etc., in the short run.”\textsuperscript{33}

37. In the areas where Centennial is licensed, there are only two geographic areas where the combined company would meet or exceed spectrum screens used by the Commission to flag possible further inquiry. In part of Jefferson County in CMA 500 (Mississippi 8 - Claiborne), where the spectrum screen is 115 MHz, the combined company would hold 132 MHz of spectrum. About four percent of the population of that CMA resides in the area where the spectrum screen is exceeded. In the other CMA (Michigan 6 - Roscommon - CMA 477), seventeen percent of the population lives in the one county where the 125 MHz spectrum screen for that county is met, but not exceeded. In the aggregate, the populations in these two areas amount to approximately 32,000 people, or about one quarter of one percent of the 13 million people in Centennial’s footprint. Given the existing spectrum available to current and potential competitors, there is no real concern that the merged firm will have so much spectrum in any given area that effective competition for next-generation services will not emerge.\textsuperscript{34}

\textsuperscript{32} See Cingular/AT&T Wireless Order ¶ 134-137. Applications of AT&T Inc. and Dobson Communications Corporation For Consent to Transfer Control of Licenses and Authorizations, File No. 0003092368 et al, Memorandum Opinion and Order, FCC 07-196, ¶ 27 (rel. Nov. 19, 2007).

\textsuperscript{33} See Cingular/AT&T Wireless Order ¶ 134.

\textsuperscript{34} The FCC concluded in another proceeding that “in each of these markets there are at least two, and as many as four, other providers that currently have sufficient market share and spectrum throughout the CMA to compete in the provision of mobile telephony services” and that “several additional firms currently hold sufficient spectrum that would enable them either to expand their
38. In many of the CMAs where AT&T and Centennial overlap, existing facilities-based competitors, and especially national competitors, have substantial amounts of available spectrum capacity. On average, in those CMAs, Sprint has 50.5 MHz, Verizon has 52.1 MHz, and T-Mobile has 40.2 MHz.\textsuperscript{35} In CMAs where existing facilities-based competitors have large spectrum holdings, it is unlikely that the combined entity will have the incentive or ability to raise prices or diminish quality post-merger.

39. The competitive conditions in Puerto Rico and U.S. Virgin Islands are similar. In Puerto Rico, on average, Sprint has 46.75 MHz and T-Mobile has 45 MHz. In the Virgin Islands, on average, Sprint has 44.25 MHz and T-Mobile has 47.5 MHz.

40. The sixth factor is the possibility of entry into a particular CMA by licensed wireless carriers that are not already providing facilities-based services in that CMA. In the continental U.S., licensed wireless providers serving adjacent CMAs have a proven infrastructure to serve nearby customers. They could, in a timely manner, extend that infrastructure to serve an adjacent CMA, in response to a hypothetical price increase by the post-merger AT&T-

\textsuperscript{35} The cellular, PCS, and AWS spectrum data come from the Commission’s Universal Licensing System database. The SMR and BRS spectrum data come from the Public Interest Statement that Sprint and Clearwire filed in connection with the formation of New Clearwire, \textit{available at} https://wireless2.fcc.gov/UlsEntry/attachments/attachmentViewRD.jsp?appId=1826989902&attachmentId=18317507\textendash attachmentInd=applAttach (downloaded on November 20, 2008). The 700 MHz data assume the grant of all licenses to the winning bidders in Auction No. 73 and come from the list of winning bidders on the Commission’s website, \textit{available at} http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-08-595A2.pdf (downloaded on November 20, 2008). Licensees were attributed to carriers based on their Form 602 ownership reports. We calculate spectrum holdings for a CMA by taking a population-weighted average of county-level spectrum holdings.
Centennial. The relatively low barriers to such facilities-based entry, especially by licensed carriers and carriers operating in adjacent areas, translate into an important competitive constraint on the merged firm. All three competing national carriers (i.e., Verizon, Sprint, and T-Mobile) are present in the majority of the overlap CMAs. In each overlap CMA, multiple facilities-based competitors will compete with AT&T after the proposed AT&T-Centennial merger.

41. Given the possibilities for potential entrants into CMAs served by AT&T and Centennial, there is strong reason to believe that another important constraint post-merger on AT&T-Centennial prices is likely entry by other wireless carriers not currently offering facilities-based service in those areas. Support for this includes the recently approved merger of Sprint Xohm and Clearwire properties into the New Clearwire, a joint venture between Sprint, Clearwire, three of the largest cable MSOs (Comcast, Time Warner Cable, and Bright House Networks), as well as Intel and Google. These parties agreed collectively to invest $3.2 billion combining Sprint and Clearwire’s next-generation wireless broadband businesses; the parties have the ability to resell services (e.g., bundle cable modem services and wireless broadband).36 In addition, the New Clearwire will expedite the deployment of a nationwide WiMAX network selling 4G wireless services through an MVNO structure with Sprint.37 Cox Communications is

also planning to compete directly with wireless providers by offering wireless services beginning in 2009. Cox has spent more than $500 million acquiring spectrum. It will partner with Sprint initially, but it has plans to build its own 3G network. While its initial network will be based on CDMA technology, Cox will test LTE for possible future use.

The seventh factor that may constrain the pricing of AT&T-Centennial post-merger is that the merged firm will face competition from MVNOs and other resellers. As a result of their national advertising and consumer recognition, these sellers often provide significant competition at a local level despite their lack of ownership of local facilities. The number of subscribers receiving wireless services from an MVNO or reseller has increased dramatically in recent years and, at the end of 2006, totaled an estimated 15.1 million. The MVNOs and resellers include companies such as TracFone Wireless, Virgin Mobile, and Qwest, which offer a variety of differentiated services. Time Warner, Cox, and Comcast already are offering such wireless services in selected areas. In analyzing the potential competitive effects...
of the proposed transaction, the competitive constraints of such non-facilities-based providers must be considered.

43. The eighth factor is the ability of competitors in neighboring CMAs to serve subscribers through roaming arrangements. In many cases in the continental U.S., carriers serving adjacent CMAs could exert competitive pressure on the combined AT&T-Centennial even without entering the CMA in which a price increase by AT&T-Centennial is hypothesized. Consumers need not limit their wireless service options to providers selling facilities-based service in the areas in which they live. If the combined firm were to attempt to raise prices in a particular geographic area, many customers could easily acquire services from adjacent areas, especially where these are geographic regions to which they ordinarily travel for work. Thus, even if the wireless providers do not have facilities-based services in a particular area, their customers can still obtain service through roaming agreements.

44. In the case of AT&T and Centennial, the competitive constraint provided by carriers serving adjacent CMAs, particularly in areas where customers might work, is significant. For example:

- CMA 458 (Louisiana 5 - Beauregard) is close to three metropolitan areas, Baton Rouge, Lafayette, and Lake Charles;
- CMA 460 (Louisiana 7 - West Feliciana) is near two metropolitan areas, Baton Rouge and New Orleans;
- CMA 501 (Mississippi 9 - Copiah) is adjacent to Jackson, Mississippi;
- CMA 101 (Beaumont - Port Arthur, Texas) is just east of the Houston metropolitan area;

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ir.net/phoenix.zhtml?c=76341&p=irol-newsarticle&t=regular&id=962949 (downloaded on November 19, 2008).
• CMAs 408 (Indiana 6 - Randolph), 405 (Indiana 3 - Huntington), 217 (Anderson, Indiana), 236 (Muncie, Indiana) and 271 (Kokomo, Indiana) all surround the Indianapolis metropolitan area;
• CMA 480 (Michigan 9 - Cass) is west of two metropolitan areas, Detroit and Toledo; and
• CMA 403 (Indiana 1-Newton) is east of the Chicago metropolitan area.43

45. The same advertised handsets and rate plans are available to any of the subscribers in these smaller CMAs as they travel between these suburban and urban areas (e.g., to work, shop, etc).

46. The ninth factor is the role of spillovers from advertising by carriers in adjacent areas. Consumers receive advertising – including pricing information – through direct mail and via the Internet. Many rural and suburban areas also receive TV and radio programming broadcast from larger population centers, as well as newspapers published in urban areas. These media outlets provide extensive information about wireless pricing and service options. Similarly, nationwide carriers generally conduct nationwide advertising that results in dissemination of their brand and rate plan information in areas where they do not actually provide service. As a result, customers are well aware of competitive options available in adjacent (or national) areas, which can constrain to some degree any ability of the combined AT&T-Centennial to raise prices or reduce service quality in any particular CMA.

47. The tenth factor is the inability to target price increases. In light of the characteristics of the wireless industry and the absence of rigid geographic boundaries to markets, it is also likely that the post-merger firm would not be able to identify customers in more concentrated areas with sufficient precision to make differential pricing across markets

43 See Hunt Decl. ¶ 5.
profitable. In particular, it would be necessary for the post-merger firm to be wrong only in a relatively small number of cases to render it unprofitable to charge higher prices to customers in a few areas with fewer competitors.44

Let us suppose that, post-merger, AT&T-Centennial attempted to charge five percent more to consumers in what it thought was a less competitive area. If it cannot precisely identify these areas (because, for example, consumers could shop in an adjacent CMA or purchase a cell phone over the Internet and use their work address rather than their home address for billing), some percentage of the people targeted for this price increase in the “less competitive” area would, in fact, have another competitive wireless provider as an option – and a segment of these customers would be inclined to switch to the alternative provider in response to the price increase by AT&T-Centennial.45 The inability of AT&T to target precisely any attempt

45 To analyze the profitability of the price increase, AT&T would compare its profit before and after the price increase. The profit earned before the price increase would be equal to 

\[
(P - C) \times N,
\]

where \( P \) is the price, \( C \) is the marginal cost of producing the service, and \( N \) is the number of consumers in the targeted area. The profit after the price increase would be 

\[
(1.05P - C) \times XN,
\]

where \( X \) is the percentage of customers who do not switch to the competitive option (so that \( 1 - X \) is the percentage of targeted customers who do switch to the competitive wireless provider). The breakeven value for \( X \) is equal to:

\[
\frac{P}{C} - 1 = \frac{1.05P}{C} - 1
\]

That is, the percentage of people who do not switch needs to be greater than this ratio for the price discrimination attempt to be profitable. For example, if the ratio of price to marginal cost were about 1.67, only 11 percent of the subscribers targeted with the price increase would have to switch away from AT&T-Centennial in order for it to be unprofitable to attempt to price discriminate against customers in rural areas. If this ratio were 2, only nine percent of the subscribers targeted with the price increase would have to switch away to defeat a price increase, and if the ratio were 1.5, only 13 percent of customers would need to switch away.
to implement a price discrimination strategy, and the concomitant costs of using a “blunt instrument,” together constitute yet another reason why the proposed merger is unlikely to result in an anticompetitive increase in prices or a diminution of service quality.

C. Coordinated Effects Analysis

49. Many of the same factors discussed above also make it unlikely that coordinated effects would occur in any subset of the CMAs in which AT&T and Centennial operate. The evidence clearly indicates that the industry is not conducive to tacit coordination now, and will not be so after the transaction. For example, the FCC has found that the wireless sector is subject to “intense competitive pressure, rather than coordinated interaction.”\footnote{See Cingular/AT&T Wireless Order ¶ 155.} Because of this competitive pressure, the FCC has stated that carriers “use information obtained about their rivals to improve their own ability to compete in attracting and retaining customers,” rather than coordinate their actions.\footnote{\textit{Id.} ¶ 154.}

50. In order for there to be any valid concerns that the proposed merger of AT&T and Centennial would give rise to coordinated interactions, it must be shown that the proposed merger would make coordination profitable to the firms involved and that post-merger there would be an “ability to detect and punish deviations that would undermine the coordinated interaction.”\footnote{See Horizontal Merger Guidelines § 2.1.}

51. The available evidence suggests that the competitors in each CMA at issue will still compete vigorously on a variety of dimensions including price, network coverage, handset

\footnote{\textit{See Cingular/AT&T Wireless Order} ¶ 155.} \footnote{\textit{Id.} ¶ 154.} \footnote{\textit{See Horizontal Merger Guidelines} § 2.1.}
promotions, plan features, service quality, customer service, and the introduction of new services. Therefore, the proposed transaction would not change the competitive dynamics enough to make coordination profitable for the firms involved. Moreover, competition along a variety of different dimensions – from promotions on handsets to service quality – makes it more difficult for rival firms to reach terms of coordination.\textsuperscript{49} We are not aware of any reason to believe that the proposed transaction would alter this fact.

52. Competitors that possess available capacity could readily increase their provision of wireless services if demand were to present itself (as would happen if providers were tacitly colluding to elevate prices). Therefore, each competitor would have strong incentives to deviate from putative coordination – the profits from cheating on the cartel would simply be too great for the cartel to be sustained.

53. The substantial profits available from cheating are due in part to the fact that cheating would be easy to accomplish and difficult to detect – and therefore hard to punish. For example, facilities-based competitors could cheat on a collusive pricing or market division-type agreement by selling cheaply to a reseller, or by signing roaming agreements. Such behavior would be difficult to monitor and punish, which makes the possibility of coordinated behavior unlikely as a result of the proposed merger.

54. Another factor that makes coordinated interactions in the wireless industry more difficult is the uncertainty of future demand. In the wireless industry, in which there is rapid technological change and roll-out of new services, there is likely to be uncertainty about future

\textsuperscript{49} The FCC recognizes many of these factors as the benefits from “effective competition” in CMRS, including low prices, new technologies, improved service quality, and new entry. \textit{See Twelfth Annual CMRS Report} at ¶ 194.
levels of demand. According to the Horizontal Merger Guidelines, coordination may be more difficult in a market with relatively frequent demand or cost fluctuations among firms. Coordination may be more difficult in these types of markets because the market driven fluctuations may be difficult for firms to distinguish from cheating on a coordinated agreement. Thus, the fluctuations make it less likely that the coordinated interactions will occur in the first place. Similarly, uncertainty about future demand creates difficulties for a putative cartel to sustain its collusive state – it would find it problematic to distinguish between low demand due to deviations from the cartel arrangement and low demand due to lack of public interest in a new product or service relative to anticipated levels.

V. Wireline Competition

55. Another aspect of the competitive effects analysis of the proposed merger between AT&T and Centennial involves wireline competition in Puerto Rico.

56. Centennial is one of several facilities-based wireline competitors in Puerto Rico that compete with the ILEC, TELPRI, to offer services such as the provision of voice, data, and Internet solutions. Other facilities-based competitors include WorldNet and Prepa.net, which is an affiliate of the local electric power company. AT&T does not own wireline facilities on the island and does not actively market to residential and small to medium-sized businesses (and

50 See Horizontal Merger Guidelines § 2.12.
51 See Hunt Decl. ¶ 21.
52 WorldNet deploys a soft switch and owns data switches for carrying IP traffic. See Hunt Decl. ¶ 21.
absent the merger has no plans to do so). The merger, therefore, does not implicate competition for such customers.

57. AT&T is a global telecommunications provider that serves multinational enterprises with operations in Puerto Rico, as well as large enterprises headquartered in Puerto Rico that require suites of services such as international connectivity and enterprise level telecommunications services. AT&T competes mainly against Verizon and BT as the global enterprise provider for multinational clients. By contrast, Centennial has wireline facilities only in Puerto Rico, so it is not a significant competitor for providing these same services to the multinational enterprises targeted by AT&T. To the extent Centennial serves enterprise customers, its focus is providing local connectivity on its fiber network. Thus, there is no basis for concern that the proposed merger would have a significant adverse effect on competition for such customers. In fact, if anything, the proposed merger will enhance such competition as AT&T gains ownership of local facilities to manage directly the service to its enterprise customers in Puerto Rico and takes advantage of its significant knowledge and resources in making Centennial’s facilities more competitive against the ILEC and other networks.

58. The proposed merger has two other potential important benefits: (i) it should provide greater reliability and reduce confusion about responsibility over network outages; and (ii) it will eliminate double marginalization. Moreover, the combined entity will not be able to harm competition because TELPRI, WorldNet, and Prepa.net remain as alternative providers of local connectivity for the significant number of competing international service providers,\(^54\)

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\(^53\) See Moore Decl. ¶ 35.

\(^54\) Centennial and AT&T provide certain services using various submarine cable assets. Neither company markets submarine cable capacity, but has made submarine capacity available to other
including Verizon, Sprint, TLD, and Global Crossing, and barriers to entry into the long distance business are low. 55

VI. Conclusion

59. The nature of competition in the wireless sector, in particular its dynamism and the significant degree of extant rivalry, leads us to conclude that a merger of AT&T and Centennial would not result in higher prices and lower output through either coordinated behavior among the participants in the wireless sector or unilateral behavior by the merged firm. Based on our analysis of the available information, we conclude that the proposed merger will deliver substantial consumer benefits while not engendering significant competitive harm in any relevant market. In addition, the available evidence shows that the proposed merger will not harm wireline competition in Puerto Rico. As such, the proposed combination is in the public interest.

carriers on a case-by-case basis. See, e.g., Hunt Decl. ¶ 23. According to both AT&T and Centennial executives, however, there are many existing competitors providing long distance services currently and ample capacity available on submarine cables to provide additional long distance capacity between the Caribbean and the U.S. should it be required. See, e.g., Moore Decl. ¶ 40. With so much capacity available through existing cables, the merged entity would have no ability to harm competition.

55 According to both AT&T and Centennial business people, a number of companies – such as Columbus and Global Crossing – currently market capacity on their submarine cable assets. In addition, there are many providers of off-island long distance, including Sprint, Verizon, PRTC, AT&T, TLD, and cable VOIP providers. See Moore Decl. ¶ 40 and Hunt Decl. ¶ 23.
I declare under penalty of perjury that the foregoing is true and correct. Executed on November 21, 2008.

Robert D. Willig

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 21, 2008.

Jonathan M. Orszag

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 21, 2008.

J. Loren Poulsen